

AMENDMENTS TO THE CLAIMS:

F' 1. (Previously Amended) A damascene interconnection comprising:
an interconnection trench formed in an insulating film and a pad trench
communicating therewith;
a protrusion formed by a portion not removed of said insulating film in said pad
trench to decrease a substantial opening area of said pad trench;
a conductive film buried in said interconnection trench and said pad trench; and
a contact hole formed within said pad trench at a position near said protrusion to
electrically connect said conductive film to a further conductive film formed below said
insulating film, wherein said contact hole and said further conductive film substantially
suppress an increase in electrical resistance in said pad trench due to formation of said
protrusion.

2. (Original) A damascene interconnection according to claim 1, wherein said
protrusion is formed not to divide said conductive film buried in said pad trench.

3. (Currently Amended) A damascene interconnection according to claim 2, wherein
said protrusion ~~increase~~ includes a plurality of island protrusions distributed at a proper
interval in said pad trench.

4. (Original) A damascene interconnection according to claim 2, wherein said
protrusion includes a ridge.

5. (Original) A damascene interconnection according to claim 1, wherein said
protrusion is formed to divide said conductive film buried in said pad trench.

6. (Original) A damascene interconnection according to claim 5, wherein said
protrusion includes a closed-loop ridge encompassing one part in said pad trench.

7. (Cancelled)

8. (Previously Amended) A semiconductor device, comprising:
a semiconductor substrate;
an insulating film formed on said semiconductor substrate;
an interconnection trench formed on said insulating film and communicating with a semiconductor element;
a pad trench formed on said insulating film and communicating with said interconnection trench;
a protrusion formed by a portion not removed of said insulating film in said pad trench and reducing a substantial opening area of said pad trench;
a conductive film buried in said interconnection trench and said pad trench;
a further conductive film formed below said insulating film; and
a contact hole formed within said pad trench at least at a position near said protrusion to electrically connect said conductive film to said further conductive film, wherein said contact hole and said further conductive film substantially suppress an increase in electrical resistance in said pad trench due to formation of said protrusion.

9. (Previously Amended) A semiconductor device according to claim 8, wherein said protrusion is formed not to divide said conductive film buried in said pad trench.

10. (Original) A semiconductor device according to claim 9, wherein said protrusion includes a plurality of island protrusions distributed at a proper interval in said pad trench.

11. (Original) A semiconductor device according to claim 9, wherein said protrusion includes a ridge.

12. (Original) A semiconductor device according to claim 8, wherein said protrusion is formed to divide said conductive film buried in said pad trench.

13. (Original) A semiconductor device according to claim 12, wherein said protrusion includes a closed-loop ridge encompassing one portion in said pad trench.

14. (Cancelled)

15. (Previously Added) A damascene interconnection according to claim 1, wherein said hole is located to surround said protrusion.

16. (Previously Added) A semiconductor device according to claim 8, wherein said hole is located to surround said protrusion.

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17. (Currently Amended) A damascene interconnection ~~as defined by claim 1,~~
comprising:

an interconnection trench formed in an insulating film and a pad trench
communicating therewith;

a protrusion formed by a portion not removed of said insulating film in said pad
trench to decrease a substantial opening area of said pad trench; and

a conductive film buried in said interconnection trench and said pad trench;

wherein the protrusion is formed as a plurality of ~~island~~ insulating protrusions ~~distributed~~ within the pad trench, the plurality of ~~island~~ insulating protrusions reducing the overall volume of the conductive film of the pad trench and increasing the electrical resistance of the conductive film of the pad trench, the further conductive film being formed below the insulating film and the plurality of ~~island~~ insulating protrusions; and wherein the damascene interconnection further includes a plurality of contact holes formed within the pad trench, each contact hole of the plurality of contact holes being positioned near at least one ~~island~~ insulating protrusion of the plurality of ~~island~~ insulating protrusions, at least some of the contact holes being situated between adjacent insulating protrusions, each contact hole of the plurality of contact holes being electrically connected between the conductive film of the pad trench and the further conductive film formed below the insulating film to define an electrical connection, the electrical connection between the conductive film of the pad trench and the further conductive film formed below the insulating film increasing the effective volume of the conductive film of the pad trench, thereby decreasing the overall electrical resistance of the conductive film of the pad trench.

18. (Currently Amended) A ~~damascene interconnection as defined by claim 8,~~
semiconductor device, comprising:

a semiconductor substrate;

an insulating film formed on said semiconductor substrate;

an interconnection trench formed on said insulating film and communicating with a semiconductor element;

a pad trench formed on said insulating film and communicating with said interconnection trench;

a protrusion formed by a portion not removed of said insulating film in said pad trench and reducing a substantial opening area of said pad trench;

a conductive film buried in said interconnection trench and said pad trench; and

a further conductive film formed below said insulating film;

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wherein the protrusion is formed as a plurality of ~~island~~ insulating protrusions distributed within the pad trench, the plurality of ~~island~~ insulating protrusions reducing the overall volume of the conductive film of the pad trench and increasing the electrical resistance of the conductive film of the pad trench, the further conductive film being formed below the insulating film and the plurality of ~~island~~ insulating protrusions; and wherein the ~~damascene interconnection~~ semiconductor device further includes a plurality of contact holes formed within the pad trench, each contact hole of the plurality of contact holes being positioned near at least one ~~island~~ insulating protrusion of the plurality of ~~island~~ insulating protrusions, at least some of the contact holes being situated between adjacent insulating protrusions, each contact hole of the plurality of contact holes being electrically connected between the conductive film of the pad trench and the further conductive film formed below the insulating film to define an electrical connection, the electrical connection between the conductive film of the pad trench and the further conductive film formed below the insulating film increasing the effective volume of the conductive film of the pad trench, thereby decreasing the overall electrical resistance of the conductive film of the pad trench.
